### Functional Description:
The Model ASC501LE Duel Up Converter is two ASC501LE modules setting side by side as a single rack mount unit. Each ASC501LE Up Converter is a high performance unit that is designed to up convert a 70 MHz (52 to 88 MHz) base band input signal to the output frequency band of 950 to 1750 MHz. The output signal then may be interfaced to the final power stage of a satellite RF transmitter (SSPA or BUC). The system performance makes the ASC501LE ideal for low data rate applications. The LE Series half-rack width permits mounting either two of the same units or a combination of our ASC501LE Up Converter and our ASC401LE Down Converter (Model ASC902LE) side by side in one rack mount unit.

### Systems Specifications:
- **Output Frequency:** 950 to 1750 MHz
- **Spectrum:** Non-inverted
- **Output Bandwidth:** 36 MHz
- **Output Level:** -15 dBm Max @ -25 dBm Input
- **Output Mute:** < -50 dBc on frequency change
- **Input Frequency:** 52 to 88 MHz
- **Input Level:** -15 to -35 dBm, -25 dBm, Typical
- **Frequency Tuning:** 125 kHz Steps
- **Frequency Adjust:** Front Panel or Remotely
- **Input Impedance:** 50 Ohm
- **Input Connector:** BNC, Female
- **Output Impedance:** 50 Ohm
- **Output Connector:** Type-N, Female
- **System Level Gain:** 10 dB Max, Typical
- **System Level Attenuation:** 0 to 25 dB, 1 dB Steps
- **Frequency Stability:** ± 0.5 ppm
- **Input & Output Return Loss:** 15 db
- **Spurious Response:** -55dBc modulated (carrier related)
- **Signal Phase Noise:** -80 dBc/Hz, 1 kHz from Carrier (Meets IESS308/309)
- **Alarms:** Internal/External Lock, BUC Lock (Options A&B)
- **Alarm Relay:** Form-A
- **Front Panel Display:** LCD with backlight
- **M&C:** RS-232 or RS-422/485 Switchable on rear panel
- **M&C Connector:** DB-9, Female

### Physical Characteristics:
- **Size:** 1.75”H X 16.00”D X 8.50”W
- **Weight:** 8 lb. (1.82 kg)
- **Primary Power:** 85 - 264 VAC 50-60Hz, 2.7 A

### Environmental Specifications:
- **Operating Temperature:** 0°C to +50°C
- **Storage Temperature:** -40°C to +70°C
- **Humidity:** 95% RH at 40°C

### Options:
- Per module but can be mixed and matched
  - **A. External Freq. Ref. (Multiplexed on Output Center Conductor):**
    - **Frequency:** 10 MHz
    - **Level:** +4 dBm, Typical
    - **Phase Noise:** 10 Hz, -90dBc/Hz
    - **Stability:** +0.28 ppm
  - **B. BUC Power (Multiplexed Output Center Conductor):**
    - **Voltage:** +24 VDC
    - **Power:** 65 W, max
  - **C. 10 MHz Ref. Input:**
    - **Input Level:** +10 to −10 dBm
    - **Input connector:** BNC, 50 Ohm Female
    - **Auto Switched:** Internal/External
    - **Stability:** ±100 Hz (±10 ppm)

The 10 MHz reference is auto switched to internal when no external reference is available or less than −10 dBm.